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Terrence L. Blevins

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EXAMINER

DISTEFANO, GREGORY A

ART UNIT

PAPER NUMBER

2175

NOTIFICATION DATE

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ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/574,824	<b>Applicant(s)</b> BLEVINS ET AL.	
	<b>Examiner</b> GREGORY A. DISTEFANO	<b>Art Unit</b> 2175	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 9-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>8/30/2010</u> . | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. This action is in response to the amendment filed on 9/22/2010.
2. Claims 1-7 and 9-21 are currently pending.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2, 4, 9-12, 14, 18, 20, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blevins et al. (US 6,445,963), hereinafter Blevins, in view of Spriggs et al. (US 6,421,571) and further in view of Blevins (US 5,594,858), hereinafter '858.

5. As per claim 1, Blevins teaches the following:

*generating information for a plurality of content layers of a process graphic display of process plant elements of the process plant*, (column 17, lines 61-63), i.e. different views of the operation of these two control modules, such as an operator's view and an engineer's view are graphically depicted on the display screens 14A and 14B;

*determining a content layer of the plurality of content layers to display via the user interface, (column 17, lines 61-63), i.e. different views of the operation of these two control modules, such as an operator's view and an engineer's view are graphically depicted on the display screens 14A and 14B; and*

*displaying via the user interface the determined content layer of the plurality of content layers, (column 17, line 64—column 18, line 5), i.e. an engineer's view on the display 14A includes a graphical depiction of the operation of the loop 132 as well as a graphical depiction of the loop 134 created to enable an engineer to access information pertaining to these loops and to manipulate these loops. Similarly, an operator's view having a graphical depiction of the operation of the loop 132 as well as a graphical depiction of the loop 134 is provided on the display 4B to enable an operator to access information pertaining to these loops and to manipulate these loops.*

However, Blevins does not explicitly teach a method where each of the different content layers are a combination of the common set of graphic display elements in conjunction with unique display information of interconnected plant equipment. Spriggs teaches the following:

*wherein the information for the plurality of content layers of the process graphic display includes:*

*(1) a set of graphic display elements common to each of the content layers, the set of graphic display elements illustrating a set of interconnected plant equipment to be illustrated in each of the plurality of content layers, (column 15, lines 2-6), i.e. the enterprise view 160 (see Fig. 7) is configured to model the actual plant layout or the*

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physical appearance of the asset or machine and shows plants, structures, machines, couplings, bearings, measurement locations, transducer orientations et cetera, *and*

*(2) content layer unique display information to be displayed in conjunction with the common set of graphic display elements for each of the different ones of the content layers*, (column 6, lines 43-47), i.e. the full management display provides the navigation and static data set of basic navigation with the addition of all diagnostic data and plot formats required for machinery diagnostics including dynamic and startup/shutdown data;

*wherein each of the different ones of the content layers is customized for a different type of user*, (column 29, lines 27-30), i.e. the display module 100 of the system 10 is sensitive to the user, as it allows the presentation of different views to machine maintenance specialists, machine operators, or instrument technicians.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the plant equipment view of Blevins with the different unique views of Spriggs. One of ordinary skill in the art would have been motivated to have made such modifications because both Blevins and Spriggs are analogous art in the field of providing multiple views for similar information.

Furthermore, both Blevins and Spriggs directly teach methods of presenting different information for different user roles. Further support for such a modification may be seen in Blevins's column 17, line 64—column 18, line 5, where both the engineer and operator possess different views of the same loop. This is extremely similar to

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Spriggs's teaching in column 29, lines 31-56, where different information windows based upon the same asset may be presented dependent upon the user type.

Furthermore, Blevins does not explicitly teach of "smart process objects". '858 teaches the following:

*the process graphic display representing one or more smart process objects, each of which smart process objects includes information for the plurality of content layers, (abstract), i.e. a control template represents a selected function of a control process for a control environment and being used to generate a plurality of displayable views of the selected function.*

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the display views of Blevins with the multi-view objects of '858. One of ordinary skill in the art would have been motivated to have made such modifications because Blevins directly teaches in column 18, lines 14-20, that "these different views may be created in conjunction with function blocks in a manner similar to that disclosed with respect to the templates discussed in U.S. Pat. No. 5,594,858 to Blevins.

For further clarity, the examiner would like to make further note of Blevins's teaching in column 18, lines 9-14, where Blevins states "the operator's views may only enable the operator to change set points and perform limited functions, while the engineer's view may enable the user to make changes to the set up of a loop, make changes to the programming within function blocks, etc. As both the operator and the engineer are viewing depictions of the same loop, this loop object is interpreted to be a

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"smart process object" as the object may present different information dependent upon the user. Upon the modification in view of '858, these "smart process objects" may be presented as different mask images presented over the same natural image (see Fig. 8).

6. Regarding claims 2, modified Blevins teaches the method of claim 1 as described above. Blevins further teaches the following:

*the generating step comprises processing runtime data received from the process plant in connection with the process plant elements, (column 17, lines 50-54), i.e. referring to Fig. 7, for example, portions of the process control system 10 of Fig. 1 are illustrated, including the controller 11 coupled via a communication link to the user displays 14A and 14B and to the devices 15-22.*

7. Regarding claims 4, modified Blevins teaches the method of claim 1 as described above. Blevins further teaches the following:

*the generating step comprises processing simulation data in connection with simulated operation of the process plant elements, (column 18, lines 49-54), i.e. in addition to downloading the MPC control logic to the MPC block within an MPC control module, at a step 135 of Fig. 2, the MPC logic or an MPC block having the developed logic therein may be sent to a workstation to use in one or more simulation*

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environments to, for example, train users how to use an MPC control block, To test the MPC block, etc.

8. Regarding claim 5, modified Blevins teaches the method of claim 4 as described above. Blevins further teaches the following:

*the user profile characteristic comprises an indication for maintenance access, and wherein the displaying step comprises rendering a maintenance content layer of the plurality of content layers based on the simulation data, (column 17, line 64—column 18, line 5), i.e. an engineer's view on the display 14A includes a graphical depiction of the operation of the loop 132 as well as a graphical depiction of the loop 134 created to enable an engineer to access information pertaining to these loops and to manipulate these loops. Similarly, an operator's view having a graphical depiction of the operation of the loop 132 as well as a graphical depiction of the loop 134 is provided on the display 4B to enable an operator to access information pertaining to these loops and to manipulate these loops.*

9. Regarding claims 9, modified Blevins teaches the method of claim 1 as described above. Blevins further teaches the following:

*the generating step comprises implementing object methods defined in a plurality of objects respectively modeling the process plant elements depicted in the process graphic display, (column 7, lines 25-31), i.e. the controller 11 implements a control strategy using what are commonly referred to as function blocks, wherein each function*



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block is a part (e.g., a subroutine) of an overall control routine and operates in conjunction with other function blocks to implement process control loops within the process control system. (further see figures 4A - 5)

10. Regarding claims 10, modified Blevins teaches the method of claim 9 as described above. Blevins further teaches the following:

*each object of the plurality of objects further defines a graphical depiction of the process plant element for each content layer of the plurality of content layers*, (column 18, lines 20-29), i.e. the MPC blocks and modules created using these blocks can provide the same kinds of graphical or reporting support as other blocks, routines or elements within the process control system 10 because the MPC block has been created on-line using the same programming strategy as the other control blocks. This feature eliminates the necessity to provide special programming simply to enable an operator, technician, engineer, etc. to view what is happening within the MPC control module or block.

11. As per claim 11, Blevins teaches the following:

*a computer-readable medium*, (column 6, lines 14-16), i.e. the data historian 12 may be any desired type of data collection unit having any desired type of memory and any desired or known software;

*a display device* (Fig. 1, #14);

*an object comprising information stored in the computer-readable medium regarding operation of the process plant element, (column 6, lines 14-16), i.e. the data historian 12 may be any desired type of data collection unit having any desired type of memory and any desired or known software; and,*

*an execution engine to utilize the object information in a runtime environment to generate content for a plurality of content layers of a process graphic display, (column 17, lines 61-63), i.e. different views of the operation of these two control modules, such as an operator's view and an engineer's view are graphically depicted on the display screens 14A and 14B;*

*wherein the display device depicts a specified content layer of the plurality of content layers, (column 17, line 64—column 18, line 5), i.e. an engineer's view on the display 14A includes a graphical depiction of the operation of the loop 132 as well as a graphical depiction of the loop 134 created to enable an engineer to access information pertaining to these loops and to manipulate these loops. Similarly, an operator's view having a graphical depiction of the operation of the loop 132 as well as a graphical depiction of the loop 134 is provided on the display 4B to enable an operator to access information pertaining to these loops and to manipulate these loops.*

However, Blevins does not explicitly teach a method where each of the different content layers are a combination of the common set of graphic display elements in conjunction with unique display information of interconnected plant equipment. Spriggs teaches the following:

*wherein the information for the plurality of content layers of the process graphic display includes:*

*(1) a set of graphic display elements common to each of the content layers, the set of graphic display elements illustrating a set of interconnected plant equipment to be illustrated in each of the plurality of content layers, (column 15, lines 2-6), i.e. the enterprise view 160 (see Fig. 7) is configured to model the actual plant layout or the physical appearance of the asset or machine and shows plants, structures, machines, couplings, bearings, measurement locations, transducer orientations et cetera, and*

*(2) content layer unique display information to be displayed in conjunction with the common set of graphic display elements for each of the different ones of the content layers, (column 6, lines 43-47), i.e. the full management display provides the navigation and static data set of basic navigation with the addition of all diagnostic data and plot formats required for machinery diagnostics including dynamic and startup/shutdown data;*

*wherein each of the different ones of the content layers is customized for a different type of user, (column 29, lines 27-30), i.e. the display module 100 of the system 10 is sensitive to the user, as it allows the presentation of different views to machine maintenance specialists, machine operators, or instrument technicians.*

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the plant equipment view of Blevins with the different unique views of Spriggs. One of ordinary skill in the art would have been motivated to have made such modifications because both Blevins and Spriggs are

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analogous art in the field of providing multiple views for similar information.

Furthermore, both Blevins and Spriggs directly teach methods of presenting different information for different user roles.

12. Regarding claims 12, modified Blevins teaches the method of claim 11 as described above. Blevins further teaches the following:

*the object information relates to receiving runtime from the process plant in connection with on-line operation of the process plant element, (column 17, lines 50-54), i.e. referring to Fig. 7, for example, portions of the process control system 10 of Fig. 1 are illustrated, including the controller 11 coupled via a communication link to the user displays 14A and 14B and to the devices 15-22.*

13. Regarding claims 14, modified Blevins teaches the method of claim 11 as described above. Blevins further teaches the following:

*the object information relates to generating simulation data in connection with simulated operation of the process plant element, (column 18, lines 49-54), i.e. in addition to downloading the MPC control logic to the MPC block within an MPC control module, at a step 135 of Fig. 2, the MPC logic or an MPC block having the developed logic therein may be sent to a workstation to use in one or more simulation environments to, for example, train users how to use an MPC control block, To test the MPC block, etc.*

14. As per claim 18, Blevins teaches the following:

*generating content for a plurality of different types of users of the user interface by processing data regarding on-line and simulated operation of the process plant,* (column 17, lines 61-63), i.e. different views of the operation of these two control modules, such as an operator's view and an engineer's view are graphically depicted on the display screens 14A and 14B, (column 18, lines 49-54), i.e. in addition to downloading the MPC control logic to the MPC block within an MPC control module, at a step 135 of Fig. 2, the MPC logic or an MPC block having the developed logic therein may be sent to a workstation to use in one or more simulation environments to, for example, train users how to use an MPC control block, To test the MPC block, etc; and,

*rendering a selected portion of the content in a customized depiction of the process plant by determining the selected portion of the content in accordance with a current user type of the plurality of different user types,* (column 17, line 64—column 18, line 5), i.e. an engineer's view on the display 14A includes a graphical depiction of the operation of the loop 132 as well as a graphical depiction of the loop 134 created to enable an engineer to access information pertaining to these loops and to manipulate these loops. Similarly, an operator's view having a graphical depiction of the operation of the loop 132 as well as a graphical depiction of the loop 134 is provided on the display 4B to enable an operator to access information pertaining to these loops and to manipulate these loops.

However, Blevins does not explicitly teach a method where each of the different content layers are a combination of the common set of graphic display elements in

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conjunction with unique display information of interconnected plant equipment. Spriggs teaches the following:

*wherein the information for the plurality of content layers of the process graphic display includes:*

*(1) a set of graphic display elements common to each of the content layers, the set of graphic display elements illustrating a set of interconnected plant equipment to be illustrated in each of the plurality of content layers, (column 15, lines 2-6), i.e. the enterprise view 160 (see Fig. 7) is configured to model the actual plant layout or the physical appearance of the asset or machine and shows plants, structures, machines, couplings, bearings, measurement locations, transducer orientations et cetera, and*

*(2) content layer unique display information to be displayed in conjunction with the common set of graphic display elements for each of the different ones of the content layers, (column 6, lines 43-47), i.e. the full management display provides the navigation and static data set of basic navigation with the addition of all diagnostic data and plot formats required for machinery diagnostics including dynamic and startup/shutdown data;*

*wherein each of the different ones of the content layers is customized for a different type of user, (column 29, lines 27-30), i.e. the display module 100 of the system 10 is sensitive to the user, as it allows the presentation of different views to machine maintenance specialists, machine operators, or instrument technicians.*

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the plant equipment view of Blevins with the

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different unique views of Spriggs. One of ordinary skill in the art would have been motivated to have made such modifications because both Blevins and Spriggs are analogous art in the field of providing multiple views for similar information.

Furthermore, both Blevins and Spriggs directly teach methods of presenting different information for different user roles.

Further support for such a modification may be seen in Blevins's column 17, line 64—column 18, line 5, where both the engineer and operator possess different views of the same loop. This is extremely similar to Spriggs's teaching in column 29, lines 31-56, where different information windows based upon the same asset may be presented dependent upon the user type.

Furthermore, Blevins does not explicitly teach of the elements being shown with display information '858 teaches the following:

*Each graphic display element has associated with it the set of depiction-specific display information for each of the plurality of customized depictions, (abstract), i.e. a control template represents a selected function of a control process for a control environment and being used to generate a plurality of displayable views of the selected function.*

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the display views of Blevins with the multi-view objects of '858. One of ordinary skill in the art would have been motivated to have made such modifications because Blevins directly teaches in column 18, lines 14-20, that "these different views may be created in conjunction with function blocks in a

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manner similar to that disclosed with respect to the templates discussed in U.S. Pat. No. 5,594,858 to Blevins.

15. Claims 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blevins in view of Spriggs.

16. As per claim 20, Blevins teaches the following:

*creating a process graphic display of a plurality of graphic display elements representative of a plurality of process plant elements of the process plant, respectively,* (column 20, lines 45-55), i.e. creating an MPC control block without the necessary control logic parameters and process model therefore and connecting this block within the process control system in a manner that is similar to the way in which other control blocks or elements are connected within the system, running the MPC control block to collect process data, producing a process model from the process data, creating logic parameters for the MPC block from the process model and loading the logic parameters and, if necessary, the process model into the MPC control block enables a user to create an MPC control block or module within a process control routine. (further see figures 4A - 5);

*configuring the plurality of graphic display elements by defining parameters related to on-line operation of the corresponding process plant elements and by defining simulation parameters to support simulated operation of the corresponding process plant elements,* (column 7, lines 25-31), i.e. the controller 11 implements a control



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strategy using what are commonly referred to as function blocks, wherein each function block is a part (e.g., a subroutine) of an overall control routine and operates in conjunction with other function blocks to implement process control loops within the process control system 10, (column 18, lines 49-54), i.e. in addition to downloading the MPC control logic to the MPC block within an MPC control module, at a step 135 of Fig. 2, the MPC logic or an MPC block having the developed logic therein may be sent to a workstation to use in one or more simulation environments to, for example, train users how to use an MPC control block, To test the MPC block, etc; and,

*establishing a plurality of content layers for selectively displaying information related to the on-line and simulated operation of the process plant elements via customized views of the process graphic display, (column 17, lines 61-63), i.e. different views of the operation of these two control modules, such as an operator's view and an engineer's view are graphically depicted on the display screens 14A and 14B.*

However, Blevins does not explicitly teach a method where each of the different content layers are a combination of the common set of graphic display elements in conjunction with unique display information of interconnected plant equipment. Spriggs teaches the following:

*wherein the information for the plurality of content layers of the process graphic display includes:*

*(1) a set of graphic display elements common to each of the content layers, the set of graphic display elements illustrating a set of interconnected plant equipment to be illustrated in each of the plurality of content layers, (column 15, lines 2-6), i.e. the*

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enterprise view 160 (see Fig. 7) is configured to model the actual plant layout or the physical appearance of the asset or machine and shows plants, structures, machines, couplings, bearings, measurement locations, transducer orientations et cetera, and

*(2) content layer unique display information to be displayed in conjunction with the common set of graphic display elements for each of the different ones of the content layers, (column 6, lines 43-47), i.e. the full management display provides the navigation and static data set of basic navigation with the addition of all diagnostic data and plot formats required for machinery diagnostics including dynamic and startup/shutdown data;*

*wherein each of the graphic display elements has associated with it content layer information for each of the plurality of content layers. As may be seen in Spriggs's teaching in column 29, lines 26-56, Spriggs teaches of presenting different content layer information, e.g. the enterprise view 154 along with different information windows simultaneously. These information windows are presented based upon the user type. Therefore, the information windows are all associated with the graphic display element (asset view 154), and*

*wherein each of the different ones of the content layers is customized for a different type of user, (column 29, lines 27-30), i.e. the display module 100 of the system 10 is sensitive to the user, as it allows the presentation of different views to machine maintenance specialists, machine operators, or instrument technicians.*

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the plant equipment view of Blevins with the

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different unique views of Spriggs. One of ordinary skill in the art would have been motivated to have made such modifications because both Blevins and Spriggs are analogous art in the field of providing multiple views for similar information.

Furthermore, both Blevins and Spriggs directly teach methods of presenting different information for different user roles.

17. Regarding claims 21, modified Blevins teaches the method of claim 20 as described above. Blevins further teaches the following:

*the step of storing a plurality of objects for the plurality of graphic display elements, respectively, wherein each object includes the parameters related to on-line operation and the simulation parameters, (column 7, lines 25-31), i.e. the controller 11 implements a control strategy using what are commonly referred to as function blocks, wherein each function block is a part (e.g., a subroutine) of an overall control routine and operates in conjunction with other function blocks to implement process control loops within the process control system.*

18. Claims 3, 8, 13, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blevins In view of Spriggs as applied to claim 1, 2, 4, 11, 12, and 14, and further in view of Eryurek et al. (US 2004/0186927), hereinafter Eryurek.

19. Regarding claims 3 and 13, modified Blevins teaches the method of claims 2 and 12 as described above. Blevins further teaches the following:

*the user profile characteristic comprises an indication for operator access, and wherein the displaying step comprises rendering an operator content layer of the plurality of content layers based on the runtime data, (column 17, lines 61-63), i.e. different views of the operation of these two control modules, such as an operator's view and an engineer's view are graphically depicted on the display screens 14A and 14B.*

However, Blevins does not explicitly teach a method where the user's role is stored in a user profile. Eryurek teaches the following:

*the determining step comprises selecting the determined content layer based on a user profile characteristic, (pg. 3, paragraph [0013]), i.e. the user profile may also include default parameters such that the report is based on default parameters, and/or information about the user's responsibilities with the process plant, such that the report is generated based on the user's responsibilities.*

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the views of Blevins with the user profiles of Eryurek. One of ordinary skill in the art would have been motivated to have made such modifications because both Blevins and Eryurek are analogous art in the field of monitoring process plants. Furthermore, Blevins show a desire for customizing displays based on user's responsibilities in their teaching of different views based upon that user's role.

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20. Regarding claim 15, modified Blevins teaches the method of claim 14 as described above. Blevins further teaches the following:

*the user profile characteristic comprises an indication for maintenance access, and wherein the displaying step comprises rendering a maintenance content layer of the plurality of content layers based on the simulation data, (column 17, line 64—column 18, line 5), i.e. an engineer's view on the display 14A includes a graphical depiction of the operation of the loop 132 as well as a graphical depiction of the loop 134 created to enable an engineer to access information pertaining to these loops and to manipulate these loops. Similarly, an operator's view having a graphical depiction of the operation of the loop 132 as well as a graphical depiction of the loop 134 is provided on the display 4B to enable an operator to access information pertaining to these loops and to manipulate these loops.*

However, Blevins does not explicitly teach a method where the user's role is stored in a user profile. Eryurek teaches the following:

*the determining step comprises selecting the determined content layer based on a user profile characteristic, (pg. 3, paragraph [0013]), i.e. the user profile may also include default parameters such that the report is based on default parameters, and/or information about the user's responsibilities with the process plant, such that the report is generated based on the user's responsibilities.*

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the views of Blevins with the user profiles of Eryurek. One of ordinary skill in the art would have been motivated to have made such

modifications because both Blevins and Eryurek are analogous art in the field of monitoring process plants. Furthermore, Blevins show a desire for customizing displays based on user's responsibilities in their teaching of different views based upon that user's role.

21. Claims 6 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blevins In view of Spriggs as applied to claim 1, 4, 11, and 14, and further in view of Hess et al. (US 6,826,521), hereinafter Hess.

22. Regarding claims 6 and 16, modified Blevins teaches the method of claims 4 and 14 as described above. However Blevins does not explicitly teach a method of simulating disturbances. Hess teaches the following:

*introducing simulated disturbances into the simulated operation of the process plant elements*, (column 14, lines 28-31), i.e. the Plant Environment 20 of Fig. 1 is replaced by a Stimulus Environment 60 which provides the simulated operator actions and process disturbances.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the process plant monitoring method of Blevins with the simulated disturbances of Hess. One of ordinary skill would have been motivated to have made such modifications because both Blevins and Hess are analogous art in the field of monitoring process plants. Furthermore, Blevins shows a desire for providing simulations for the purpose of training users (see column 18, lines

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49-54). As was well known in the art, providing simulated errors was a well known method to train users on the use/maintenance of a system.

23. Claims 7 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blevins In view of Spriggs and further in view of Hess as applied to claims 1, 4, 6, 11, 14, and 16 above, and further in view of Eryurek, and further in view of Blevins et al. (US 2004/0153804), hereinafter '804.

24. Regarding claims 7 and 17, modified Blevins teaches the method of claims 6 and 16 as described above. However, Blevins does not explicitly teach a method where the user's role is stored in a user profile. Eryurek teaches the following:

*selecting the determined content layer based on a user profile characteristic,* (pg. 3, paragraph [0013]), i.e. the user profile may also include default parameters such that the report is based on default parameters, and/or information about the user's responsibilities with the process plant, such that the report is generated based on the user's responsibilities.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the views of Blevins with the user profiles of Eryurek. One of ordinary skill in the art would have been motivated to have made such modifications because both Blevins and Eryurek are analogous art in the field of monitoring process plants. Furthermore, Blevins shows a desire for customizing

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displays based on user's responsibilities in their teaching of different views based upon that user's role.

Furthermore, Blevins does not explicitly teach a method of one role being a training instructor. '804 teaches the following:

*the user profile characteristic comprises an indication for training instructor access, and wherein the displaying step comprises rendering an instructor content layer of the plurality of content layers to support the introducing step,* (pg. 14, paragraph [0093]), i.e. the training instructor may use the display to effect or change properties in the simulation performed by the process module 100a.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the user roles of Blevins with the training instructor of '804. One of ordinary skill in the art would have been motivated to have made such modifications because both Blevins and '804 are analogous art in the field of monitoring process plants. Furthermore Blevins shows a desire for providing simulations for the purpose of training users (see column 18, lines 49-54), thus showing the desire for training coordinators.

25. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Blevins In view Spriggs as applied to claim 18 above.

26. Regarding claims 19, modified Blevins teaches the method of claim 18 as described above. However, Blevins does not explicitly teach a method of "*the rendering*



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*step comprises determining whether the process plant is on-line to further determine the selected portion of the content for the customized depiction”.*

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Blevins's method to determine whether the process plant is on-line. One of ordinary skill in the art would have been motivated to have made such modifications because as Blevins teaches in their abstract, their method is directed to monitoring the outputs of a process plant. As was well known in the art at the time, in order to monitor the outputs of a process plant that process plant would need to be on-line, as an off-line plant produces no output. This is further shown in Blevins teaching in column 6, lines 8-28, where they teach “the controller 11 is also connected to field devices 15-22 via input/output cards 26 and 28. The data historian 12 may be any desired type of data collection unit having any desired type of memory and any desired or known software, hardware or firmware for storing data and may be separate from or a part of one of the workstations 13”. As results are received from a remote location, it would be clear to one of ordinary skill in the art to have first ensured that the remote location is on-line.

### ***Response to Arguments***

27. Applicant's arguments with respect to claims 1-7, 9, 10, and 18-21 have been considered but are moot in view of the new ground(s) of rejection.

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28. Applicant's arguments with respect to claim 11 have been fully considered but they are not persuasive.

29. Applicant first argues on pages 12 and 13 of their response that neither Blevins nor Spriggs taken individually or in combination teach or suggest an object including graphic display elements common to each of the content layers and content layer unique display information.

The examiner respectfully disagrees.

As Spriggs teaches in column 29, lines 26-56, different types of users may be presented with different information windows. One of these windows, preferably the window view 154 showing asset representations of the hierarchy or 162 showing virtual views of the actual object. This window view would than be common to all views for all user types. The sub windows may vary dependent upon the type of user such as current value/history window 168 for diagnostic view and instrument explorer window for instrument view. Thus Spriggs teaches of a graphic displaying a common element and content layer unique information.

Furthermore, Blevins suggests displaying both common objects and unique values in column 18, lines 1-29. As per Blevins, both the operator's view and the engineer's view both display a loop. Blevins further teaches the information displayed about the loop may be different dependent upon the user type. The access to this information may than be varied upon the type of user which is viewing it.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GREGORY A. DISTEFANO whose telephone number is (571)270-1644. The examiner can normally be reached on Monday through Friday, 9 a.m. - 5 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Bashore can be reached on 571-272-4088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Examiner, Art Unit 2175  
12/6/2010

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